



Games Programming

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Some slightly unpleasant truths...



Advanced Programming

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Dropping you in the deep end

The project you develop is certainly important, worth a total of 1.5 module credits. However, you may not know how to best approach the project, or how you can develop parts of the game, or indeed if you have the ability to actually do it.

This is a very human reaction to any type of situation that has an important outcome, but the route towards that outcome is unknown, unclear or uncertain – i.e. it is a recognised factor that can produce stress. I can't ask you not to have this natural reaction, but if you do then please read the comments from previous students (most of whom experienced the same concern).

Failures rates on the project have been relatively low (~5%) with high numbers of students getting 1st class marks (>25%) – this is not to say it is easy to pass the project component, rather with time and effort the vast majority of students will be able to pass and score well (the failure rate is almost entirely due to students who failed to engage with their project). As you get stuck into your project and weeks pass, confidence levels will increase.



Your own expectations may be overly demanding

You likely have played lots of computer games. This is a good thing as it means you are an accomplished critic and can apply your judgement to your own project. It can also be a bad thing as your prior experiences have likely been of games developed by a large team of professionals, over a period of 1-2+ years, with multi-million pound budgets. In other words, you may be a harsh critic of your own game.

Additionally, when estimating how long something will take, most people underestimate the amount of time. In other words, your initial list of game functionality, and your initial weekly schedule will likely slip as you run into bugs, and find things take longer to develop than anticipated.

Understanding that both these things are likely to happen will hopefully help. In the last two years, the vast majority of projects (~95%), if actually realised based on the initial planning, would have received a 100% project score. In other words, 95% of projects were too ambitious in their initial planning. This is not necessarily a problem – there is nothing wrong with aiming for something that can easily get 100% in the project and accepting that your goal is to get as close as possible to the initial target without actually needing to hit the target.



There is likely no clear finish line

There will likely be no clear point when you can say your game is done and dusted – certainly not within the limited amount of time we have. There will always be some extra feature that could be added to the game or some existing aspect improved. This means it can be hard to get a feel for how good your project is (i.e. will it pass the module at 40%, get a 2.1 at 60%, a first at 70% or a high first at 80%, etc.)

As part of my feedback at each hand-in point, I will try to provide information on how things look to be going, although my assessment will necessarily be speculative (i.e. based on current development and your future plans).

You should also make good use of the assessment criteria at the end of the Project Development Report and think about how your game matches the defined criteria. Please remember, the best thing to do if you are uncertain is to simply ask me. I'll give you my honest assessment.

As an important aside, we will also look at lots of examples of project within the lectures benchmarking them against the assessment criteria. By the end of the project most students can correctly determine the degree classification of their own project.



Purposefully making your life difficult

When designing this module I could have put on a series of weekly practical sessions that would take you, step-by-step, through the process of building core game elements.

When developing your project you may find yourself thinking that if practical sessions had been available they would have made your life a lot easier. This is almost certainly true; however, I purposefully want to put you in situations where there is no clear way forward; where you have to experiment with different approaches, some of which will not work, and come to your own decision about what is best. I want to put you in situations where you have to spend time hunting down bugs and working out why your program is not doing what you want it to do.

Why do I want to make your life difficult? Is it that I'm simply sadistic? Well, ok, yes, but more seriously I want to put you in these situations because professional programmers (game developers and every other type of developer) find themselves in the same types of situation. Learning new programming languages, investigating different approaches, making judgements, and debugging problems are all part of what it is to be a programmer.

When assessing your game I will be fully mindful of the fact that I purposefully put you in a difficult position, i.e. the marking would have been more demanding if there had been a series of practicals to 'hold your hand'.